

REMARKS

Reexamination and reconsideration of the rejections are hereby requested. Claims 1-5 and 32-46 are presently pending in this application. Claim 35 was objected to. Claim 35 has been amended herein to add a colon as required by the Examiner. It is submitted that the objection to Claim 35 has been overcome.

The present invention is directed generally to a method of answering a question, the answer to which may be included in documents stored on a computer-readable medium such as Internet pages. According to this aspect of the invention a question using natural language is received. An example is given on Page 12 of the specification. In this example, the question received is “Who did the boy see?” The question is then parsed to obtain an analyzed question. A question analyzer recognizes the word *Who* as a question word, the word *did* as auxiliary, *the* as a determiner, *boy* as a noun, *the boy* as a noun phrase, and *see* as a verb, in deriving the analyzed question:

(*WH *Who*) (*AUX *did*) (*NP (*DET *the*) (*N *boy*)) (*V *see*)?

Next, the analyzed question may be simplified if desired and then matched to a set of predetermined question patterns to obtain one or more matched question patterns.

The next step is transforming the one or more matched question patterns into one or more partially unspecified statements that has a partially unspecified portion that corresponds to an answer to the original question. After the question patterns are transformed into the partially unspecified statements, the method generates partially unspecified queries corresponding to the partially unspecified statements. Answers are obtained by matching the partially unspecified queries to stored information.

Claims 1-5 and 32-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brown et al. U. S. Patent No. 6,665,666 in view of Brown et al. U. S. Patent No. 5,477,451

referred to as Brown et al. '451. Brown '666 is directed to a system for answering questions using a search engine. Though the goals of Brown '666 are similar to the present invention, his methods are different. In Brown '666 a question is received and immediately matched to query patterns. The patent teaches that the query-analysis is enhanced by developing a set of question-templates that are matched against the user's query with substitution of certain query terms with special query-tokens that correspond to certain phrase labels. Brown '666 does not parse the question to obtain an analyzed question as taught in the present application. The Examiner refers to Brown '666 at column 5 lines 7-10 and at column 11 lines 61-65 to support the Examiner's contention that the reference meets the parsing limitation. Column 5 at line 10 mentions "text parsing", but that section of the patent does not suggest parsing the question to obtain an analyzed question as used in the present application. The text at column 11 lines 60-65 deals with what part of the question should be submitted to the search engine and the original question is parsed into four parts. As patentee says "in essence the characteristic part of the question gets replaced by the appropriate QA-Tokens." This operation does not result in an analyzed question.

The Examiner also takes the position that Brown '666 teaches generating partially unspecified queries corresponding to the partially unspecified statements. The Examiner cites Brown '666 at column 3 lines 56-66. We note that Brown states that "we describe a query-analysis process which receives a query as input and matches it to one or more of the question templates...". There is no teaching of generating partially unspecified queries. Furthermore, the Examiner acknowledges that Brown '666 does not teach transforming the question patterns into one or more partially unspecified statements so that Brown clearly could not generate partially unspecified queries corresponding to partially unspecified statements.

As mentioned just above, the Examiner acknowledges that Brown '666 does not teach transforming the one or more matched question patterns into one or more partially unspecified

statements in which the transforming includes matching each of the matched question patterns to a set of predetermined transformations corresponding to the one or more partially unspecified statements wherein each of the partially unspecified statements is missing a portion corresponding to an answer and the predetermined transformations described some syntactic variations of one or more terms included in the question. The Examiner cites the other reference, Brown '451, to supply this teaching.

While Brown '666 is directed to a system for answering questions as is the present invention, Brown '451 is directed to a method and system for natural language translation, that is, merely a system for translating text from one language such as French to another language such as English. Text translation from one language to another is clearly a non-analogous art with respect to a system for answering questions the answers to which are imbedded in text. Therefore, there would be no motivation to combine the teachings of these two patents.

Notwithstanding the above observation concerning non-analogous art, Brown '451 does not teach that which the Examiner suggests. For example, the Examiner states that Brown '451 "teaches transforming the one or matched question patterns into one or more partially unspecified statements." The undersigned attorney has carefully reviewed the specific citations from Brown '451 listed by the Examiner and can find no teaching whatsoever of transforming one or more matched question patterns into one or more partially unspecified statements. It is submitted that Brown '451 does not teach or suggest transforming matched question patterns into partially unspecified statements as set forth in claim 1. Claims 2-5 depend from claim 1 and are allowable for the reasons discussed above with respect to independent claim 1. Claims 32-34 also depend from claim 1 and are allowable.

Independent claim 35 is similar to claim 1 but differs in that the predetermined transformations represent affirmative statement patterns corresponding to the one or more

matched question patterns. As mentioned above in connection with claim 1, Brown '451 is in the non-analogous art of language translation rather than a system for answering questions. Further, Brown '451 does not teach transforming matched question patterns into one or more partially unspecified statements. Reconsideration is requested.

Independent claim 37 is directed to a computer program product for answering a question and is similar in scope to claim 1. It is submitted that claim 37 is allowable for the reasons set forth with respect to claim 1. Claims 38-44 depend from claim 37 and are therefore also allowable.

Independent claim 45 is directed to a computer program product for answering a question and is similar in scope to independent claim 35 discussed above. It is submitted that claim 45 is patentable over the cited references. Claim 46 depends from claim 45 and is also allowable.

In summary, Brown '666 and Brown '451 are in non-analogous fields and even if they were combined, their teachings would not meet the limitations of the claims as discussed above. It is submitted that the claims are in condition for allowance and early favorable action is requested.

Respectfully submitted,
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